UNITED STATES PATENT AND TRADEMARK OFFICE

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EXAMINER
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ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/052,744	RAPP ET AL.
	Examiner	Art Unit	
	KAREN C. TANG	2151	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *2/25/08*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2-22 and 29-37* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *2-22, 29-37* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

-        This action is responsive to the amendment and remarks file on 2/25/08.

-        Claims 2-22, 29-37 are presented for further examination.

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 2/25/08 have been fully considered but they are not

persuasive.

Applicant argues that the combination of Moyne in view of Krovoshein did not disclosed the

following limitation in claims 5 and 12 "signal database that manage the communication

between hardware subsystem and application service system and self configuring interface

system that comprises a configuration module coupled to retrieve interface configuration

information from the signal database."

Examiner disagrees.

First, Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to

a general allegation that the claims define a patentable invention without specifically pointing

out how the language of the claims patentably distinguishes them from the references.

Second, Moyne in view of Kriovoshein disclosed the alleged missing limitations in Claim

5 and 12. Kriovoshein disclosed "a signal database (master database, refer to Col 21, Lines 64)

that manage the communication between hardware subsystem (process graphic subsystem, refer

to Col 21, Lines 43) and application service system (control subsystem, refer to Col 21, Lines

50-51) and self configuring interface system (subsystem, refer to Col 21, Lines 61-62) that

comprises a configuration module (run-time implementation 1220, refer to Col 22, Lines 13)

coupled to retrieve interface configuration information from the signal database (refer to Col 22,

Lines 26-34 and Col 22, Lines 1-9)"

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 2-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moyne (US

5,469,361) in view of Krivoshein et al hereinafter Krovoshein (US 5,980,078).

1. Referring to Claim 5, Moyne discloses a system (refer to Title) comprising:

a hardware subsystem (manufacturing equipment, refer to Col 4, Lines 27-67) that includes at

least one component (equipment controllers 13a-13s) adapted to carry an electrical signal

(commands, refer to Col 4, Lines 50-67) associated with one from the group of a sensing

operation and a control operation (refer to Col 5, Lines 25-55).

An application database (22, refer to Col 6, Lines 1-10) storing application service

configuration information (refer to Col 8, Lines 60-67 and Col 9, Lines 50-67 and Col 11, Lines

40-55) that corresponds to a manner of processing information associated with the electrical

signal (message, refer to Col 6, lines 1-5); and

a self configuring application services system (refer to Col 5, Lines 15-25) comprising a

configuration module (Main program module 21, refer to Col 7, Lines 60-67) coupled to the

hardware subsystem (manufacturing equipment, refer to Col 4, Lines 27-67) and coupled to

retrieve application service configuration information from the application database (refer to Col

8, Lines 1-15), the self-configuring application service system operable itself for communication

with the hardware subsystem using the application service configuration information, this

configuration including associating an event code with the electrical signal (refer to Col 5, Lines

55-67, Col 6, Lines 1-15, when receiving messages/stimuli, then the application service system

will invoke a proper sequence such as determined type of routine to call as an result of the

unique action to take. The routines are the event code, and the stimulis and routine calls are the

electronic signals).

Although Moyne disclosed the invention substantially as claimed, Moyne is silent regarding a

signal database that manage the communication between hardware subsystem and application

service system and self configuring interface system that comprises a configuration module

coupled to retrieve interface configuration information from the signal database.

Krovoshein, in an analogous art disclosed a signal database that manage the communication

between hardware subsystem and application service system and self configuring interface

system that comprises a configuration module coupled to retrieve interface configuration

information from the signal database (refer to Col 22, Lines 26-34).

Hence, providing features disclosed by Krovoshein, would be desired for users to implement

because it provides the ability to support automatic sensing of devices.

Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the

art to modify the system of Moyne by including the features which can automatic sensing of

devices and provides flexible and reliable configuration ways to configure a device.

a self-configuring interface system coupled to the hardware subsystem and the application

services system and comprising a configuration module coupled to retrieve interface

configuration information from the signal database (refer to Col 6, Lines 29-40 and Col 17, Lines

50-67).

2. Referring to Claim 12, Moyne discloses

a hardware subsystem (manufacturing equipment, refer to Col 4, Lines 27-67) that includes a set

of components adapted to carry electrical signal (commands, refer to Col 4, Lines 50-67), each

electrical signal associated with one from the group of a sensing operation and a control

operation (refer to Col 5, Lines 25-55);

an application database (22, refer to Col 6, Lines 1-10) referencing a first software object

(Message, refer to Col 15, Lines 60-67) that corresponds to a manner of processing information

associated with an electrical signal (message, refer to Col 6, lines 1-5, and Col 14, Lines 50-67

and Col 15);

a self-configuring application services system (refer to Col 5, Lines 15-25) comprising:

a configuration module (Main program module 21, refer to Col 7, Lines 60-67) coupled to the

hardware subsystem (manufacturing equipment, refer to Col 4, Lines 27-67) and coupled to

retrieve application service configuration information from the application database (refer to Col

8, Lines 1-15); and

the first software object (Message, refer to Col 15, Lines 60-67);

a signal database storing interface configuration information (refer to Col 16) corresponding to a

manner of managing communication between the hardware subsystem and the application

services system and referencing a second software object (Invocation, which would be included

in the message, refer to Col 15, Lines 50-67, and Col 16) that corresponds to a manner of

processing information associated with an electrical signal (refer to Col 11, Lines 4-55) and

associates an event code with the electrical signal (The routines are the event code, and the

stimulis and routine calls are the electronic signals, refer to Col 5, Lines 55-67 and Col 6, Lines

1-15); and

a self- configuring interface system (refer to Col 5, Lines 15-25) coupled to the hardware

subsystem (manufacturing equipment, refer to Col 4, Lines 27-67) and the application services

system (cell controller system, refer to Col 5, Lines 22-50) comprising:

a configuration module (Main program module 21, refer to Col 7, Lines 60-67) coupled to

retrieve interface configuration information from the signal database (refer to Col 8, Lines 1-15);

and

the second software object (Invocation, refer to Col 15, Lines 60-67).

3. Referring to Claims 23 and 29, Moyne discloses n a system (refer to Title) comprising a

hardware subsystem (manufacturing equipment, refer to Col 4, Lines 27-67) that includes a set of

components adapted to carry electrical signals (commands, refer to Col 4, Lines 50-67), each

electrical signal associated with one from the group of a sensing operation and a control

operation (refer to Col 5, Lines 25-55), a method for processing an electrical signal comprising

the step of:

retrieving application service configuration information that references a software object that

includes program instructions directed toward processing the electrical signal (message parser,

which retrieve relevant information from the electrical signal for the program instruction, refer to

Col 5, Lines 55-67);

retrieving a software object in accordance with the application service configuration information

(function, refer to Col 6, Lines 15-67 and Col 7, Lines 1-20, and Col 9, Lines 20-50);

retrieving interface configuration information corresponding to the hardware subsystem (action,

refer to Col 9, Lines 20-50) the configuration information including an event code associated

with the electronic signal (The routines are the event code, and the stimulis are the electronic

signals, refer to Col 5, Lines 55-67 and Col 6, Lines 1-15, to pass the routines calls is electronic

signals);

and

automatically generating a hardware interface (database information influence how the

controller's action, which "generate" the "new" controller, that perform different action, Col 11,

Lines 5-55, via interface, refer to Col 11, Lines 55-67) for managing communication between the

software object (database information, refer to refer to Col 11, Lines 1-5) and the hardware

subsystem in accordance with the interface configuration information (SDR-SECs driver, refer to

Col 11, Lines 15-55).

4. Referring to Claim 2, Moyne discloses the application service configuration information references a software object for processing information associated with the electrical signal, and the application service system further comprises the software object (refer to Col 13, Lines 10-67 and Col 14, Lines 1-50)

5. Referring to Claim 3, Moyne discloses the object database storing a version of the software object (database stores the newest updated parameters/object, refer to Col 14, Lines 8-50).

6. Referring to Claim 6, Moyne discloses wherein said interface configuration information further references a software object that corresponds to a manner of processing information associated with the electrical signal (information that parsed from the message which can called up the software routine that can configure the controller, refer to Col 5, Lines 15-67 and Col 6, Lines 1-67).

7. Referring to Claim 7, Moyne discloses wherein the interface system further comprises the software object (refer to Col 3, Lines 1-15).

8. Referring to Claim 8, Moyne discloses wherein an object database storing a version of the software object (database stores the newest updated parameters/object, refer to Col 14, Lines 8-50).

9. Referring to Claims 10 and 17, Moyne discloses wherein the interface system communications with the hardware subsystem in accordance with the electrical signal, and communications with

the appliance services system in accordance with an event code that corresponds to the electrical

signal (refer Col 5, Lines 64-Col 6, Lines 15, and Col 6, Lines 55-61 and Col 7, Lines 65 and Col

8, Lines 8).

10. Referring to Claim 11 and 18, Moyne discloses wherein the interface system communicates

with the hardware subsystem in accordance with the electrical signal, and communicates with the

software object and the application service system in accordance with an event code that

corresponds to the electrical signal (refer to Col 5, Lines 64- Col 6, Lines 55-61, Col 7, Lines 65

to Col 8, Lines 8, and Col 5, Lines 25-55).

13. Referring to Claims 13, 24, and 30, Moyne discloses comprising an object database (database

22, refer to Col 13, Lines 40-50, Col 8, Lines 15-67, and Col 16, Lines 1-15) storing one from

the group of the first software object (Entity, Message, refer to Col 15, Lines 65-67) and the

second software object (Entity, Invocation, refer to Col 15, Lines 65-67).

14. Referring to Claims 4, 9, 14, 25 and 31, Moyne discloses wherein the object database forms a

portion of an Object Database Management System (refer to Col 13, Lines 45-55)

15. Referring to Claim 15, Moyne discloses the network coupled to the application service

system and the interface system (refer to Col 4, Lines 25-55 and Col 3, Lines 1-15, and Col 5,

Lines 35-55).

16. Referring to Claim 16, Moyne discloses wherein the network comprises one from the group

of a Local Area Network, a Wide Area network, and the Internet (Local area network, refer to

Col 4, Lines 65-67)

17. Referring to Claim 19, Moyne discloses wherein the interface system further comprises:

a signal exchange module coupled to the hardware subsystem, the signal exchange module

comprising a storage element for storing a hardware signal corresponding to an electrical signal

(refer to Col 5, Lines 54-Col 6, Lines 15, Col 6, Lines 55-61, and Col 7, Lines 65 - Col 8, Lines

8);

18. Referring to Claim 21, Moyne discloses wherein the interface system further comprises:

a signal exchange module coupled to the hardware subsystem, the signal exchange module

comprising a storage element for storing a hardware signal corresponding to an electrical signal;

an event coding-decoding module coupled to map between an electrical signal and an event code

(refer to Col 5, Lines 54-Col 6, Lines 15, Col 6, Lines 55-61, and Col 7, Lines 65 - Col 8, Lines

8).

an inter-process communication module coupled to manage event-based communication with the

application services system (refer to Col 5, Lines 54-Col 6, Lines 15, Col 6, Lines 55-61, and Col

7, Lines 65 - Col 8, Lines 8).

19. Referring to Claim 22, Moyne discloses wherein the interface system further comprises:

a signal exchange module coupled to the hardware subsystem, the signal exchange module

comprising a storage element for storing a hardware signal corresponding to an electrical signal;

an event coding-decoding module coupled to map between an electrical signal and an event

code; and

an interprocess communication module coupled to manage event-based communication with the

application services system and the second software object (refer to Col 5, Lines 54-Col 6, Lines

15, Col 6, Lines 55-61, and Col 7, Lines 65 - Col 8, Lines 8, Examiner interprets the second

software object as "Innovation" entity, refer to Col 15, Lines 65-67).

20. Referring to Claim 26, Moyne discloses wherein a mapping between the electrical signal and

an event code (refer to Col 13, Lines 60-67 and Col 14, Lines 1-50).

21. Referring to Claim 32, Moyne discloses wherein a mapping between a set of electrical

signals and a set of event codes for those electrical signals associated with software objects

within the first set of software object (refer to Col 5, Lines 54-Col 6, Lines 15, Col 6, Lines 55-

61, and Col 7, Lines 65-Col 8, Lines 5, and Col 13, Lines 60-67 and Col 14, Lines 1-15:

Examiner interprets the first set of the software object is Message entity, refer to Col 15, Lines

65-67)

22. Referring to Claim 34, Moyne discloses wherein a mapping between a set of electrical

signals and a set of event codes for those electrical signals associated with software objects

within the second set of software object (refer to Col 5, Lines 54-Col 6, Lines 15, Col 6, Lines

55-61, and Col 7, Lines 65-Col 8, Lines 5, and Col 13, Lines 60-67 and Col 14, Lines 1-15:

Examiner interprets the first set of the software object is Invocation entity, refer to Col 15, Lines

65-67).

23. Referring to Claim 33, Moyne discloses: managing communication between the hardware

subsystem and the interface system in accordance with the set of electrical signal (refer to Col 4,

Lines 20-67, Col 5, Lines 1-15, Lines 55-67, and Col 6); and

managing communication between the interface system and the first set of software objects in

accordance with the set of event codes ("Message entity", refer to Col 14, Lines 50-67, Col 15 -

16).

24. Referring to Claim 35, Moyne discloses: managing communication between the hardware

subsystem and the interface system in accordance with the set of electrical signal (refer to Col 4,

Lines 20-67, Col 5, Lines 1-15, Lines 55-67, and Col 6); and

managing communication between the interface system and the first set of software objects and

the second set of software objects in accordance with the set of event codes (event codes, as the

routine codes, retrieve the routine codes based on the entities within the messages, which are the

sets of the software objects, the refer to Col 15, Col 16, Col 17, and Col 18).

36. Referring to Claim 36, Moyne discloses executing program instruction associated with the

first set of software objects within a first computer system (parent unit, refer to Col 5, Lines 1-

15, and Col 3, Lines 1-15, Col 5); and

executing program instructions associated with the second set of software objects within a

second computer system (the message is associated with the program instruction, which also

influence the child unit/second computer setting, refer to Col 5 and Col 6).

25. Referring to Claim 37. Moyne discloses the second computer system (children unit, refer to

Col 4, Lines 50-67, and Col 5, Lines 1-15) includes the hardware interface.

Conclusion

Examiner's Notes: Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner. In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karen C. Tang whose telephone number is (571)272-3116. The examiner can normally be reached on M-F 7 - 3.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (571)272-3964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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